INDEX TO AUTHORS

A

Ahrens, Edward H., Jr. See *Blankenhorn and Ahrens*, 69

Alberty, Robert A. See *Frieden and Alberty*, 859

Aldrich, Robert A. See *Talman, Case, Nevé, Labbe, and Aldrich*, 663

Alejo, L. G. See *Burch, Storvick, Bicknell, Kung, Alejo, Everhart, Lowry, King, and Bessey*, 897

Allen, Arthur, Friedmann, Bernice, and **Weinhouse, Sidney.** Tissue preferences for fatty acid and glucose oxidation, 921

Ames, Bruce N., and **Mitchell, Herschel K.** The biosynthesis of histidine. Imidazoleglycerol phosphate, imidazoleacetol phosphate, and histidinol phosphate, 687

B

Baer, Erich, and **Maurukas, Jonas.** The diazometholysis of glycerolphosphatides. A novel method of determining the configuration of phosphatidyl serines and cephalins, 39

— and —. Phosphatidyl serine, 25

Bailey, Harlene. See *Bumpus and Page*, 111

Balis, M. Earl, Lark, Cynthia T., and **Luzzati, Denise.** Nucleotide utilization by *Escherichia coli*, 641

Barclay, Ralph K., and **Garfinkel, Esther.** Glycine and adenine as precursors of nucleic acid purines in tumor-bearing mice, 397

Bartlett, R. G., Jr. See *Register and Bartlett*, 741

Bean, R. C., and **Hassid, W. Z.** Assimilation of $C^{14}O_2$ by a photosynthesizing red alga, *Iridophycus flaccidum*, 411

Beard, Marion F. See *Pitney, Beard, and Van Loon*, 117

Beaton, J. R., and **Goodwin, M. E.** Renal glutaminase activities in vitamin B_6-deficient rats, 195

Beck, William S. Determination of triose phosphates and proposed modifications in the aldolase method of Sibley and Lehninger, 847

Bessey, Otto A. See *Burch, Storvick, Bicknell, Kung, Alejo, Everhart, Lowry, King, and Bessey*, 897

Bettelheim, F. R. Amino terminal group in chymotrypsinogen, 235

— and **Neurath, Hans.** The rapid activation of chymotrypsinogen, 241

Bicknell, Roberta L. See *Burch, Storvick, Bicknell, Kung, Alejo, Everhart, Lowry, King, and Bessey*, 897

Blankenhorn, David H., and **Ahrens, Edward H., Jr.** Extraction, isolation, and identification of hydrolytic products of triglyceride digestion in man, 69

Bloom, Ben, and **Stetten, DeWitt, Jr.** The fraction of glucose catabolized via the glycolytic pathway, 555

Bocklage, Bernadette C., Doisy, E. A., Jr., Elliott, William H., and **Doisy, Edward A.** Absorption and metabolism of cortisone-4-C^{14} acetate, 935

Bonar, Robert A., and **Duggan, Edward L.** The preparation of ribonucleoprotein from yeast, 697

Boszormenyi-Nagy, I. Formation of phosphopyruvate from phosphoglycerate in hemolyzed human erythrocytes, 495

Bowne, S. W., Jr. See *Stevens, Gigger, and Bowne*, 461

Bradlow, H. Leon. See *Fukushima, Leeds, Bradlow, Kritchevsky, Stokem, and Gallagher*, 449

Brodie, Arnold F., and **Lipmann, Fritz.** Identification of a gluconoiactonase, 677

Brown, Douglas M. See *Spackman, Smith, and Brown*, 255

Bugher, J. C. See *Tamm, Bugher, and Horsfall*, 125

Bumpus, F. Merlin, and **Page, Irvine H.** Serotonin and its methylated derivatives in human urine, 111

XUM

Burch, Helen B., Storvick, Clara A., Bicknell, Roberta L., Kung, H. C., Alejo, L. G., Everhart, W. A., Lowry, Oliver H., King, C. G., and **Bessey, Otto A.** Metabolic studies of precursors of pyridine nucleotides, 897

Burger, Martin. See *Sobel and Burger*, 105

C

Case, James D. See *Talman, Case, Nevé, Labbe, and Aldrich*, 663

Chang, Irene. See *Mistry, Vadopalaite, Chang, Firth, and Johnson*, 713

Chu, Edith Ju-Hwa. See *Chu and Chu*, 1

Chu, T. C., and **Chu, Edith Ju-Hwa.** Paper chromatography of iron complexes of porphyrins, 1

Colowick, Sidney P. See *San Pietro, Kaplan, and Colowick*, 941

Coon, Minor J. See *Rose, Coon, Lambert, and Howe*, 201

Cooperstein, S. J. See *Hurwitz and Cooperstein*, 771

Cox, Catherine Carr. See *Vanatta and Cox*, 599

Crandall, Dana I. Homogentisic acid oxidase. II. Properties of the crude enzyme in rat liver, 565

D

D'Ambruso, Margaret. See *Forbes and D'Ambruso*, 655

Daughaday, William H., Larner, Joseph, and **Hartnett, Carolyn.** The synthesis of inositol in the immature rat and chick embryo, 869

Davie, Earl W., and **Neurath, Hans.** Identification of a peptide released during autocatalytic activation of trypsinogen, 515

— and —. The terminal groups of the soy bean trypsin inhibitor, 507

Denton, C. A. See *Machlin, Pearson, and Denton*, 469

Dinning, James S. The rôle of vitamin E in regulating the turnover rate of nucleic acids, 735

Doisy, E. A., Jr. See *Bocklage, Doisy, Elliott, and Doisy*, 935

Doisy, Edward A. See *Bocklage, Doisy, Elliott, and Doisy*, 935

Dorfman, Albert, Roseman, Saul, Moses, Frances E., Ludowieg, Julio, and **Mayeda, Minoru.** The biosynthesis of hyaluronic acid by group A streptococcus. III. Origin of the *N*-acetylglucosamine moiety, 583

—. See *Schiller, Mathews, Goldfaber, Ludowieg, and Dorfman*, 531

Drabkin, David L., and **Marsh, Julian B.** Metabolic channeling in experimental nephrosis. I. Protein and carbohydrate metabolism, 623

—. See *Marsh and Drabkin*, 633

Duerst, Marie. See *Rigas and Osgood*, 607

Duggan, Edward L. See *Bonar and Duggan*, 697

Dunn, Max S. See *Levy, Montañez, and Dunn*, 985

E

Eisenberg, Frank, Jr. The formation of glucose and glucuronic acid from lactate-3-C^{14} *in vitro*, 501

Elliott, William H. See *Bocklage, Doisy, Elliott, and Doisy*, 935

Elvehjem, C. A. See *Ericson, Williams, and Elvehjem*, 537

Ericson, L.-E., Williams, J. N., Jr., and **Elvehjem, C. A.** Studies on partially purified betaine-homocysteine transmethylase of liver, 537

Everhart, W. A. See *Burch, Storvick, Bicknell, Kung, Alejo, Everhart, Lowry, King, and Bessey*, 897

F

Fallot, Pierre. See *Schmidt, Greenbaum, Fallot, Walker, and Thannhauser*, 887

Firth, Jay. See *Mistry, Vadopalaite, Chang, Firth, and Johnson*, 713

Forbes, Gilbert B., and **D'Ambruso, Margaret.** Determination of sodium in bone with the aid of cation exchange chromatography, 655

Frieden, Carl, and **Alberty, Robert A.** The effect of pH on fumarase activity in acetate buffer, 859

Friedmann, Bernice. See *Allen, Friedmann, and Weinhouse,* 921

Fromm, Herbert J. See *Williamson and Fromm,* 705

Fukushima, David K., Leeds, Norma S., Bradlow, H. Leon, Kritchevsky, Theodore H., Stokem, Madeleine B., and **Gallagher, T. F.** The characterization of four new metabolites of adrenocortical hormones, 449

G

Gallagher, T. F. See *Fukushima, Leeds, Bradlow, Kritchevsky, Stokem, and Gallagher,* 449

Garfinkel, Esther. See *Barclay and Garfinkel,* 397

Gergely, J., Gouvea, M. A., and **Karibian, D.** Fragmentation of myosin by chymotrypsin, 165

—. See *Laurent and Gergely,* 325

Gigger, Richard P. See *Stevens, Gigger, and Bowne,* 461

Goldfaber, Lawrence. See *Schiller, Mathews, Goldfaber, Ludowieg, and Dorfman,* 531

Goodwin, M. E. See *Beaton and Goodwin,* 195

Gots, Joseph S. See *Love and Gots,* 647

Gouvea, M. A. See *Gergely, Gouvea, and Karibian,* 165

Greenbaum, Lowell M. See *Schmidt, Greenbaum, Fallot, Walker, and Thannhauser,* 887

Greenberg, David M. See *Kinnory, Takeda, and Greenberg,* 379, 385

H

Hardy, Sarah, and **Putnam, Frank W.** Proteins in multiple myeloma. IV. Interaction with metabolic nitrogen, 371

—. See *Putnam and Hardy,* 361

Hartnett, Carolyn. See *Daughaday, Larner, and Hartnett,* 869

Hassid, W. Z. See *Bean and Hassid,* 411

Hiatt, Howard H. See *Horecker, Smyrniotis, Hiatt, and Marks,* 827

Hilker, Doris M. See *Melchior and Hilker,* 187

Hogeboom, George H. See *Kuff, Hogeboom, and Striebich,* 439

Horecker, B. L., and **Smyrniotis, P. Z.** Purification and properties of yeast transaldolase, 811

—, —, **Hiatt, Howard H.,** and **Marks, Paul A.** Tetrose phosphate and the formation of sedoheptulose diphosphate, 827

Horsfall, F. L., Jr. See *Tamm, Bugher, and Horsfall,* 125

Howe, E. E. See *Rose, Coon, Lambert, and Howe,* 201

Hudson, Perry B. See *Lombardo, Mann, Viscelli, and Hudson,* 345

—. See *Lombardo, Viscelli, Mittelman, and Hudson,* 353

Hurwitz, Jerard. Inhibition studies on aldehyde oxidase, 757

— and **Cooperstein, S. J.** Reduction of cytochrome oxidase by liver aldehyde oxidase, 771

I

Iacobellis, Michael. See *Schroeder, Iacobellis, and Smith,* 973

Imperante, John. See *Sheppard, Imperante, and Wright,* 837

J

Johnson, B. Connor. See *Mistry, Vadopalaite, Chang, Firth, and Johnson,* 713

Johnson, Carl A. See *Stevens, Johnson, and Watanabe,* 49

Johnson, R. Bernal. See *Kelly, Nielson, Johnson, and Vestling,* 545

K

Kaplan, Nathan O. See *San Pietro, Kaplan, and Colowick,* 941

Karibian, D. See *Gergely, Gouvea, and Karibian,* 165

Kelly, Thomas L., Nielson, Eldon D., Johnson, R. Bernal, and **Vestling, Carl S.** Glucose-6-phosphate dehydrogenase of adrenal tissue, 545

XUM

Kihara, Hayato, and **Snell, Esmond E.** Peptides and bacterial growth. VII. Relation to inhibitions by thienylalanine, ethionine, and canavanine, 83

King, C. G. See *Burch, Storvick, Bicknell, Kung, Alejo, Everhart, Lowry, King, and Bessey,* 897

Kingsley, George R. See *Schaffert and Kingsley,* 59

Kinnory, David S., Takeda, Yoshiro, and **Greenberg, David M.** Chromatography of carboxylic acids on a silica gel column with a benzene-ether solvent system, 379

—, —, and —. Isotope studies on the metabolism of valine, 385

Kit, Saul. The conversion of acetate-2-C^{14} to glycine by cell suspensions of the Gardner lymphosarcoma, 311

Kobayashi, Yutaka. See *Schayer, Kobayashi, and Smiley,* 593

Kornberg, Arthur. See *Lieberman and Kornberg,* 909

Kring, Jean P., and **Williams, J. N., Jr.** Interference in the fluorometric analysis of pyridine nucleotides by certain ions, 751

Kritchevsky, Theodore H. See *Fukushima, Leeds, Bradlow, Kritchevsky, Stokem, and Gallagher,* 449

Kuff, Edward L., Hogeboom, George H., and **Striebich, Mary Jo.** The sedimentation behavior of alcohol dehydrogenase and urease in crude solutions, 439

Kung, H. C. See *Burch, Storvick, Bicknell, Kung, Alejo, Everhart, Lowry, King, and Bessey,* 897

L

Labbe, Robert F. See *Talman, Case, Nevé, Labbe, and Aldrich,* 663

Lambert, G. Frederick. See *Rose, Coon, Lambert, and Howe,* 201

Lark, Cynthia T. See *Balis, Lark, and Luzzati,* 641

Larner, Joseph. The action of crystalline muscle phosphorylase on outer chains of glycogen and amylopectin, 9

Larner, Joseph. See *Daughaday, Larner, and Hartnett,* 869

Laurent, T. C., and **Gergely, J.** Light scattering studies on hyaluronic acid, 325

Leeds, Norma S. See *Fukushima, Leeds, Bradlow, Kritchevsky, Stokem, and Gallagher,* 449

Levy, Harvey M., Montañez, Grace, and **Dunn, Max S.** Effect of ethionine and fasting on the free amino acids of rat liver, 985

Lichstein, Herman C. The presence of bound biotin in purified preparations of oxalacetic carboxylase, 217

Lieberman, Irving, and **Kornberg, Arthur.** Enzymatic synthesis and breakdown of a pyrimidine, orotic acid. III. Ureidosuccinase, 909

Liener, Irvin E. See *Viswanatha, Pallansch, and Liener,* 301

Lipmann, Fritz. See *Brodie and Lipmann,* 677

Litwin, Jack. See *Williams, Litwin, and Thorne,* 427

Loewus, Frank A., Tchen, T. T., and **Vennesland, Birgit.** The enzymatic transfer of hydrogen. III. The reaction catalyzed by malic dehydrogenase, 787

—. See *Talalay, Loewus, and Vennesland,* 801

Lombardo, Michael E., Mann, Phillip H., Viscelli, Thomas A., and **Hudson, Perry B.** A method for the extraction of steroids from blood, 345

—, **Viscelli, Thomas A., Mittelman, Arnold,** and **Hudson, Perry B.** The removal of non-steroidal pigments of urinary extracts by adsorption on charcoal, 353

Love, Samuel H., and **Gots, Joseph S.** Purine metabolism in bacteria. III. Accumulation of a new pentose-containing arylamine by a purine-requiring mutant of *Escherichia coli,* 647

Lowe, Irene P., and **Roberts, Eugene.** Incorporation of radioactive sulfate sulfur into taurine and other substances in the chick embyro- 477

Lowry, Oliver H. See *Burch, Storvick, Bicknell, Kung, Alejo, Everhart, Lowry, King, and Bessey,* 897
Ludowieg, Julio. See *Dorfman, Roseman, Moses, Ludowieg, and Mayeda,* 583
—. See *Schiller, Mathews, Goldfaber, Ludowieg, and Dorfman,* 531
Luzzati, Denise. See *Balis, Lark, and Luzzati,* 641

M

Machlin, L. J., Pearson, P. B., and **Denton, C. A.** The utilization of sulfate sulfur for the synthesis of taurine in the developing chick embryo, 469
Mann, Phillip H. See *Lombardo, Mann, Viscelli, and Hudson,* 345
Marks, Paul A. See *Horecker, Smyrniotis, Hiatt, and Marks,* 827
Marsh, Julian B., and **Drabkin, David L.** Metabolic channeling in experimental nephrosis. II. Lipide metabolism, 633
—. See *Drabkin and Marsh,* 623
Mason, Howard S., and **Peterson, E. W.** The reaction of quinones with protamine and nucleoprotamine: *N*-terminal proline, 485
Mathews, Martin B. See *Schiller, Mathews, Goldfaber, Ludowieg, and Dorfman,* 531
Maurukas, Jonas. See *Baer and Maurukas,* 25, 39
Mayeda, Minoru. See *Dorfman, Roseman, Moses, Ludowieg, and Mayeda,* 583
McConnell, Kenneth P., and **Van Loon, E. J.** Distribution of Se^{75} in serum proteins as determined by paper electrophoresis, 747
Mela, Paula. See *Strecker, Mela, and Waelsch,* 223
Melchior, Jacklyn B., and **Hilker, Doris M.** Enzymes in pituitary tissue, 187
Mistry, S. P., Vadopalaite, Irene, Chang, Irene, Firth, Jay, and **Johnson, B. Connor.** Vitamin B_{12} and transmethylation in pig, chick, and rat liver homogenates, 713
Mitchell, Herschel K. See *Ames and Mitchell,* 687
Mittelman, Arnold. See *Lombardo, Viscelli, Mittelman, and Hudson,* 353
Montañez, Grace. See *Levy, Montañez, and Dunn,* 985
Moses, Frances E. See *Dorfman, Roseman, Moses, Ludowieg, and Mayeda,* 583

N

Neurath, Hans. See *Bettelheim and Neurath,* 241
—. See *Davie and Neurath,* 507, 515
Nevé, Richard A. See *Talman, Case, Nevé, Labbe, and Aldrich,* 663
Nielson, Eldon D. See *Kelly, Nielson, Johnson, and Vestling,* 545

O

Olmsted, Peter S., and **Villee, Claude A.** Nucleic acid composition of human liver cell fractions, 179
Osgood, Edwin E. See *Rigas and Osgood,* 607

P

Page, Irvine H. See *Bumpus and Page,* 111
Pallansch, M. J. See *Viswanatha, Pallansch, and Liener,* 301
Pearson, P. B. See *Machlin, Pearson, and Denton,* 469
Petermann, Mary L. See *Robbins, Petermann, and Rall,* 403
Peterson, E. W. See *Mason and Peterson,* 485
Peterson, Ralph E. See *Wyngaarden, Peterson, and Wolff,* 963
Pitney, W. R., Beard, Marion F., and **Van Loon, E. J.** The vitamin B_{12} content of electrophoretic fractions of liver homogenates, 117
Poe, Charles F. See *Puleston, Poe, and Witt,* 319
Porter, Keith R., and **Tamm, Igor.** Direct visualization of a mucoprotein component of urine, 135
Puleston, Harry S., Poe, Charles F., and **Witt, Norman F.** Inhibition studies with pyrimidines on *Streptococcus faecalis* R, 319

XUM

Putnam, Frank W., and **Hardy, Sarah.** Proteins in multiple myeloma. III. Origin of Bence-Jones protein, 361
—. See *Hardy and Putnam*, 371

R

Rafelson, Max E., Jr. Conversion of acetate-1-C^{14} to tryptophan in *Aerobacter aerogenes*, 953
Rall, J. E. See *Robbins, Petermann, and Rall*, 403
Register, U. D., and **Bartlett, R. G., Jr.** Effect of cold and restraint on tissue non-protein sulfhydryl compounds in methionine-deficient rats, 741
Rigas, Demetrios A., and **Osgood, Edwin E.** Purification and properties of the phytohemagglutinin of *Phaseolus vulgaris*, 607
Robbins, Jacob, Petermann, Mary L., and **Rall, J. E.** Electrophoresis of the thyroxine-binding protein of serum at pH 4.5, 403
Roberts, Eugene. See *Lowe and Roberts*, 477
Roe, Joseph H. The determination of sugar in blood and spinal fluid with anthrone reagent, 335
Rose, William C., Coon, Minor J., Lambert, G. Frederick, and **Howe, E. E.** The amino acid requirements of man. VIII. The metabolic availability of the optical isomers of acetyltryptophan, 201
Roseman, Saul. See *Dorfman, Roseman, Moses, Ludowieg, and Mayeda*, 583
Rowbottom, J. The radiolysis of aqueous solutions of tyrosine, 877
Rutman, Julia, Rutman, Robert J., and **Tarver, Harold.** Studies on protein synthesis *in vitro*. V. The effect of diet and fasting on the incorporation of methionine-S^{35} into liver protein, 95
Rutman, Robert J. See *Rutman, Rutman, and Tarver*, 95

S

San Pietro, Anthony, Kaplan, Nathan O., and **Colowick, Sidney P.** Pyridine nucleotide transhydrogenase. VI. Mechanism and stereospecificity of the reaction in *Pseudomonas fluorescens*, 941
Schaffert, Roscoe R., and **Kingsley, George R.** A rapid, simple method for the determination of reduced, dehydro-, and total ascorbic acid in biological material, 59
Schayer, Richard W., Kobayashi, Yutaka, and **Smiley, Rosa L.** Determination of histamine as an isotopic derivative, 593
Schiller, Sara, Mathews, Martin B., Goldfaber, Lawrence, Ludowieg, Julio, and **Dorfman, Albert.** The metabolism of mucopolysaccharides in animals. II. Studies in skin utilizing labeled acetate, 531
Schmidt, Gerhard, Greenbaum, Lowell M., Fallot, Pierre, Walker, Augustus C., and **Thannhauser, S. J.** The amounts of glycerophosphoryl esters in some tissues, 887
Schroeder, Lawrence J., Iacobellis, Michael, and **Smith, Arthur H.** The influence of water and pH on the reaction between amino compounds and carbohydrates, 973
Sheppard, Erwin, Imperante, John, and **Wright, Irving S.** The effect of phosphorylated hesperidin on the polymerization of fibrinogen as studied by light scattering, 837
Smiley, Rosa L. See *Schayer, Kobayashi, and Smiley*, 593
Smith, Arthur H. See *Schroeder, Iacobellis, and Smith*, 973
Smith, Emil L., and **Spackman, Darrel H.** Leucine aminopeptidase. V. Activation, specificity, and mechanism of action, 271
—. See *Spackman, Smith, and Brown*, 255
Smyrniotis, P. Z. See *Horecker and Smyrniotis*, 811
—. See *Horecker, Smyrniotis, Hiatt, and Marks*, 827
Snell, Esmond E. See *Kihara and Snell*, 83

Sobel, Albert Edward, and **Burger, Martin.** Calcification. XIII. The influence of calcium, phosphorus, and vitamin D on the removal of lead from blood and bone, 105

Spackman, Darrel H., Smith, Emil L., and **Brown, Douglas M.** Leucine aminopeptidase. IV. Isolation and properties of the enzyme from swine kidney, 255

—. See *Smith and Spackman,* 271

Stanbury, John B. See *Wyngaarden and Stanbury,* 151

Stetten, DeWitt, Jr. See *Bloom and Stetten,* 555

Stevens, Carl M., Gigger, Richard P., and **Bowne, S. W., Jr.** The cellular D-amino acids of *Bacillus brevis,* 461

—, **Johnson, Carl A.,** and **Watanabe, Ronald.** Preparation of *S*-allyl-DL-homocysteine and related compounds and tests of their growth effects in rats, 49

Stokem, Madeleine B. See *Fukushima, Leeds, Bradlow, Kritchevsky, Stokem, and Gallagher,* 449

Storvick, Clara A. See *Burch, Storvick, Bicknell, Kung, Alejo, Everhart, Lowry, King, and Bessey,* 897

Strecker, Harold J., Mela, Paula, and **Waelsch, Heinrich.** Brain thioesterases, 223

Striebich, Mary Jo. See *Kuff, Hogeboom, and Striebich,* 439

Swell, Leon, and **Treadwell, C. R.** Cholesterol esterases. VI. Relative specificity and activity of pancreatic cholesterol esterase, 141

T

Takeda, Yoshiro. See *Kinnory, Takeda, and Greenberg,* 379, 385

Talalay, Paul, Loewus, Frank A., and **Vennesland, Birgit.** The enzymatic transfer of hydrogen. IV. The reaction catalyzed by a β-hydroxysteroid dehydrogenase, 801

Talman, Ellen L., Case, James D., Nevé, Richard A., Labbe, Robert F., and **Aldrich, Robert A.** Porphyrin metabolism. I. Experimental porphyria in chick embryos, 663

Tamm, Igor, Bugher, J. C., and **Horsfall, F. L., Jr.** Ultracentrifugation studies of a urinary mucoprotein which reacts with various viruses, 125

—. See *Porter and Tamm,* 135

Tarver, Harold. See *Rutman, Rutman, and Tarver,* 95

Tchen, T. T. See *Loewus, Tchen, and Vennesland,* 787

Thannhauser, S. J. See *Schmidt, Greenbaum, Fallot, Walker, and Thannhauser,* 887

Thorne, Curtis B. See *Williams, Litwin, and Thorne,* 427

Treadwell, C. R. See *Swell and Treadwell,* 141

V

Vadopalaite, Irene. See *Mistry, Vadopalaite, Chang, Firth, and Johnson,* 713

Vanatta, John C., and **Cox, Catherine Carr.** Quantitative determination of urine sodium by means of ion exchange resins, 599

Van Loon, E. J. See *McConnell and Van Loon,* 747

—. See *Pitney, Beard, and Van Loon,* 117

Vennesland, Birgit. See *Loewus, Tchen, and Vennesland,* 787

—. See *Talalay, Loewus, and Vennesland,* 801

Vestling, Carl S. See *Kelly, Nielson, Johnson, and Vestling,* 545

Villee, Claude A. See *Olmsted and Villee,* 179

Viscelli, Thomas A. See *Lombardo, Mann, Viscelli, and Hudson,* 345

—. See *Lombardo, Viscelli, Mittelman, and Hudson,* 353

Viswanatha, T., Pallansch, M. J., and **Liener, Irvin E.** The inhibition of trypsin. II. The effect of synthetic anionic detergents, 301

W

Waelsch, Heinrich. See *Strecker, Mela, and Waelsch,* 223

XUM

Wainio, W. W. Reactions of cytochrome oxidase, 723
Walker, Augustus C. See *Schmidt, Greenbaum, Fallot, Walker, and Thannhauser,* 887
Walker, James B. Canavanine and homoarginine as antimetabolites of arginine and lysine in yeast and algae, 207
—. Homoarginine inhibition of *Escherichia coli* B, 617
Watanabe, Ronald. See *Stevens, Johnson, and Watanabe,* 49
Weinhouse, Sidney. See *Allen, Friedmann, and Weinhouse,* 921
Williams, J. N., Jr. See *Ericson, Williams, and Elvehjem,* 537
—. See *Kring and Williams,* 751
Williams, William J., Litwin, Jack, and **Thorne, Curtis B.** Further studies on the biosynthesis of γ-glutamyl peptides by transfer reactions, 427
Williamson, Martin B., and **Fromm, Herbert J.** The incorporation of sulfur amino acids into the proteins of regenerating wound tissue, 705
Witt, Norman F. See *Puleston, Poe, and Witt,* 319
Wolff, Ann R. See *Wyngaarden, Peterson, and Wolff,* 963
Wright, Irving S. See *Sheppard, Imperante, and Wright,* 837
Wu, Kwang Ying Tai. See *Schayer, Kobayashi, and Smiley,* 593
Wyngaarden, James B., Peterson, Ralph E., and **Wolff, Ann R.** Physiologic disposition of radiometabolites of hydrocortisone-4-C^{14} in the rat and guinea pig, 963
— and **Stanbury, John B.** The formation of monoiodotyrosine and an intermediate iodine complex by thyroid homogenates, 151

INDEX TO SUBJECTS

A

Acetate: Carbon 14-labeled, glycine from, Gardner lymphosarcoma, *Kit*, 311
— —, tryptophan from, *Aerobacter aerogenes, Rafelson*, 953
Labeled, skin mucopolysaccharide metabolism, relation, *Schiller, Mathews, Goldfaber, Ludowieg, and Dorfman*, 531
Acetylglucosamine: *N*-, hyaluronic acid biosynthesis, streptococcus group A, origin, *Dorfman, Roseman, Moses, Ludowieg, and Mayeda*, 583
Acetyltryptophan: Isomers, optical, metabolic availability, *Rose, Coon, Lambert, and Howe*, 201
Adenine: Nucleic acid purine precursors, tumor-bearing mice, *Barclay and Garfinkel*, 397
Adrenal(s): Glucose-6-phosphate dehydrogenase, *Kelly, Nielson, Johnson, and Vestling*, 545
Adrenocortical hormone(s): *Fukushima, Leeds, Bradlow, Kritchevsky, Stokem, and Gallagher*, 449
Aerobacter aerogenes: Acetate-1-C^{14} conversion to tryptophan, *Rafelson*, 953
Alanine: Thienyl-. *See* Thienylalanine
Alcohol dehydrogenase: Sedimentation, *Kuff, Hogeboom, and Striebich*, 439
Aldehyde oxidase: *Hurwitz*, 757
Liver, cytochrome oxidase reduction, effect, *Hurwitz and Cooperstein*, 771
Aldolase: Trans-. *See* Transaldolase
Alga: Arginine, canavanine and homoarginine as antimetabolites, *Walker*, 207
Lysine, canavanine and homoarginine as antimetabolites, *Walker*, 207
See also Iridophycus
Allyl-DL-homocysteine: *S*-, preparation and growth effect, *Stevens, Johnson, and Watanabe*, 49
Amino acid(s): D-, *Bacillus brevis, Stevens, Gigger, and Bowne*, 461
Free, liver, ethionine and fasting effect, *Levy, Montañez, and Dunn*, 985
Requirements, *Rose, Coon, Lambert, and Howe*, 201
Sulfur-containing, incorporation into proteins, wounds, *Williamson and Fromm*, 705
Amino compound(s): Carbohydrates and, reaction, factors affecting, *Schroeder, Iacobellis, and Smith*, 973
Aminopeptidase: Leucine. *See* Leucine aminopeptidase
Amino terminal group: Chymotrypsinogen, *Bettelheim*, 235
Amylopectin: Muscle phosphorylase action, *Larner*, 9
Arginine: Canavanine as antimetabolite, yeast and algae, *Walker*, 207
Homo-. *See* Homoarginine
Homoarginine as antimetabolite, yeast and algae, *Walker*, 207
Arylamine: Pentose-containing, *Escherichia coli* mutant, *Love and Gots*, 647
Ascorbic acid: Biological material, determination, *Schaffert and Kingsley*, 59
Dehydro-. *See* Dehydroascorbic acid

B

Bacillus brevis: D-Amino acids, *Stevens, Gigger, and Bowne*, 461
Bacteria: Growth, canavanine effect, *Kihara and Snell*, 83
—, ethionine effect, *Kihara and Snell*, 83
—, peptides and, relation, *Kihara and Snell*, 83
—, thienylalanine effect, *Kihara and Snell*, 83
Purine metabolism, *Love and Gots*, 647

XUM

Bacteria—*continued:*
See also Aerobacter, Escherichia, Streptococcus
Bean: Soy, trypsin inhibitor, terminal groups, *Davie and Neurath,* 507
See also Phaseolus
Betaine-homocysteine transmethylase: Liver, *Ericson, Williams, and Elvehjem,* 537
Biological material: Ascorbic acid, determination, *Schaffert and Kingsley,* 59
Dehydroascorbic acid, determination, *Schaffert and Kingsley,* 59
Biotin: Bound, oxalacetic carboxylase, *Lichstein,* 217
Blood: Lead removal, calcium, phosphorus, and vitamin D effect, *Sobel and Burger,* 105
Steroid extraction, *Lombardo, Mann, Viscelli, and Hudson,* 345
Blood cell(s): Red, phosphopyruvate formation from phosphoglycerate, *Boszormenyi-Nagy,* 495
Blood serum: Protein selenium 75-labeled, *McConnell and Van Loon,* 747
—, thyroxine-binding, electrophoresis, *Robbins, Petermann, and Rall,* 403
Blood sugar: Determination, anthrone reagent use, *Roe,* 335
Bone: Lead removal, calcium, phosphorus, and vitamin D effect, *Sobel and Burger,* 105
Sodium determination, *Forbes and D'Ambruso,* 655
Brain: Thioesterase, *Strecker, Mela, and Waelsch,* 223

C

Calcification: *Sobel and Burger,* 105
Calcium: Blood and bone lead removal, effect, *Sobel and Burger,* 105
Canavanine: Arginine antimetabolite, yeast and algae, *Walker,* 207
Bacterial growth, effect, *Kihara and Snell,* 83
Lysine antimetabolite, yeast and algae, *Walker,* 207
Cancer: *See also* Lymphosarcoma, Myeloma
Carbohydrate(s): Amino compounds and, reaction, factors affecting, *Schroeder, Iacobellis, and Smith,* 973
Metabolism, nephrosis, *Drabkin and Marsh,* 623
Carbon dioxide: Carbon 14-labeled, assimilation, *Iridophycus flaccidum, Bean and Hassid,* 411
Carboxylase: Oxalacetic. *See* Oxalacetic carboxylase
Carboxylic acid(s): Chromatography, *Kinnory, Takeda, and Greenberg,* 379
Cephalin(s): Configuration, determination, *Baer and Maurukas,* 39
Cerebrospinal fluid: Sugar, determination, anthrone reagent use, *Roe,* 335
Cholesterol esterase: Pancreas, *Swell and Treadwell,* 141
Chymotrypsin: Myosin fragmentation, effect, *Gergely, Gouvea, and Karibian,* 165
Chymotrypsinogen: Activation, rapid, *Bettelheim and Neurath,* 241
Amino terminal group, *Bettelheim,* 235
Cold: Tissue non-protein sulfhydryl compounds, methionine deficiency, effect, *Register and Bartlett,* 741
Cortisone acetate: Carbon 14-labeled, absorption and metabolism, *Bocklage, Doisy, Elliott, and Doisy,* 935
Cysteine: *S*-Allyl-DL-homo-. *See* Allyl-DL-homocysteine
Cytochrome oxidase: *Wainio,* 723
Liver aldehyde oxidase effect, *Hurwitz and Cooperstein,* 771

D

Dehydroascorbic acid: Biological material, determination, *Schaffert and Kingsley,* 59
Dehydrogenase: Alcohol. *See* Alcohol dehydrogenase

Dehydrogenase—*continued:*
Glucose-6-phosphate. *See* Glucose-6-phosphate dehydrogenase
β-Hydroxysteroid. *See* Hydroxysteroid dehydrogenase
Malic. *See* Malic dehydrogenase
Detergent(s): Anionic, trypsin, effect, *Viswanatha, Pallansch, and Liener,* 301
Diet: Liver protein, methionine-S^{35} incorporation into, effect, *Rutman, Rutman, and Tarver,* 95
Digestion: Triglyceride, hydrolytic products, *Blankenhorn and Ahrens,* 69

E

Embryo: Chick, inositol synthesis, *Daughaday, Larner, and Hartnett,* 869
—, porphyria, *Talman, Case, Nevé, Labbe, and Aldrich,* 663
—, sulfate sulfur, radioactive, incorporation into taurine, *Lowe and Roberts,* 477
—, taurine synthesis, sulfate sulfur utilization, *Machlin, Pearson, and Denton,* 469
Enzyme(s): Hydrogen transfer, *Loewus, Tchen, and Vennesland,* 787
Talalay, Loewus, and Vennesland, 801
Orotic acid synthesis and breakdown, *Lieberman and Kornberg,* 909
Pituitary, *Melchior and Hilker,* 187
See also Chymotrypsin, Fumarase, etc.
Escherichia coli: Growth, homoarginine effect, *Walker,* 617
Mutant, purine-requiring, pentose-containing arylamine, *Love and Gots,* 647
Nucleotide utilization, *Balis, Lark, and Luzzati,* 641
Esterase: Cholesterol. *See* Cholesterol esterase
Thio-. *See* Thioesterase
Ethionine: Bacterial growth, effect, *Kihara and Snell,* 83
Liver amino acids, free, effect, *Levy, Montañez, and Dunn,* 985

F

Fasting: Liver amino acids, free, effect, *Levy, Montañez, and Dunn,* 985
— protein, methionine-S^{35} incorporation into, effect, *Rutman, Rutman, and Tarver,* 95
Fatty acid: Oxidation, tissue preference, *Allen, Friedmann, and Weinhouse,* 921
Fibrinogen: Polymerization, hesperidin, phosphorylated, effect, *Sheppard, Imperante, and Wright,* 837
Fumarase: *Frieden and Alberty,* 859

G

Gluconolactonase: Identification, *Brodie and Lipmann,* 677
Glucosamine: *N*-Acetyl-. *See* Acetylglucosamine
Glucose: Catabolism, glycolysis, *Bloom and Stetten,* 555
Formation, lactate-3-C^{14}, relation, *Eisenberg,* 501
Oxidation, tissue preference, *Allen, Friedmann, and Weinhouse,* 921
Glucose-6-phosphate dehydrogenase: Adrenal, *Kelly, Nielson, Johnson, and Vestling,* 545
Glucuronic acid: Formation, lactate-3-C^{14}, relation, *Eisenberg,* 501
Glutaminase: Kidney, vitamin B_6 deficiency, effect, *Beaton and Goodwin,* 195
Glutamyl peptide(s): γ-, biosynthesis, *Williams, Litwin, and Thorne,* 427
Glycerate: Phospho-. *See* Phosphoglycerate
Glyceride: Tri-. *See* Triglyceride
Glycerolphosphatide(s): Diazomethylysis, *Baer and Maurukas,* 39
Glycerophosphoryl ester(s): Tissues, *Schmidt, Greenbaum, Fallot, Walker, and Thannhauser,* 887
Glycine: Acetate-2-C^{14} conversion to, Gardner lymphosarcoma, *Kit,* 311
Nucleic acid purine precursors, tumor-bearing mice, *Barclay and Garfinkel,* 397

XUM

Glycogen: Muscle phosphorylase action, *Larner*, 9
Glycolysis: Glucose catabolism, *Bloom and Stetten*, 555
Growth: *S*-Allyl-DL-homocysteine, effect, *Stevens, Johnson, and Watanabe*, 49

H

Hemagglutinin: Phyto-. *See* Phytohemagglutinin
Hesperidin: Phosphorylated, fibrinogen polymerization, effect, *Sheppard, Imperante, and Wright*, 837
Histamine: Determination, isotopic derivative use, *Schayer, Kobayashi, and Smiley*, 593
Histidine: Biosynthesis, imidazoleglycerol phosphate, imidazoleacetol phosphate, and histidinol phosphate relation, *Ames and Mitchell*, 687
Histidinol phosphate: Histidine biosynthesis, relation, *Ames and Mitchell*, 687
Homoarginine: Arginine antimetabolite, yeast and algae, *Walker*, 207
Escherichia coli growth, effect, *Walker*, 617
Lysine antimetabolite, yeast and algae, *Walker*, 207
Homogentisic acid oxidase: Liver, *Crandall*, 565
Hyaluronic acid: Biosynthesis, streptococcus group A, *N*-acetylglucosamine origin, *Dorfman, Roseman, Moses, Ludowieg, and Mayeda*, 583
Light scattering, *Laurent and Gergely*, 325
Hydrocortisone: Carbon 14-labeled, radiometabolites, metabolism, *Wyngaarden, Peterson, and Wolff*, 963
Hydrogen: Transfer, enzymatic, *Loewus, Tchen, and Vennesland*, 787
Talalay, Loewus, and Vennesland, 801
—, β-hydroxysteroid dehydrogenase rôle, *Talalay, Loewus, and Vennesland*, 801
—, malic dehydrogenase rôle, *Loewus, Tchen, and Vennesland*, 787
Hydroxysteroid dehydrogenase: β-, hydrogen transfer, rôle, *Talalay, Loewus, and Vennesland*, 801

I

Imidazoleacetol phosphate: Histidine biosynthesis, relation, *Ames and Mitchell*, 687
Imidazoleglycerol phosphate: Histidine biosynthesis, relation, *Ames and Mitchell*, 687
Inositol: Synthesis, rat, immature, and embryo, chick, *Daughaday, Larner, and Hartnett*, 869
Iridophycus flaccidum: Carbon dioxide, carbon 14-labeled, assimilation, *Bean and Hassid*, 411
Iron: Complexes, porphyrin, chromatography, paper, *Chu and Chu*, 1

K

Kidney: Glutaminase, vitamin B_6 deficiency, effect, *Beaton and Goodwin*, 195
Leucine aminopeptidase, isolation and properties, *Spackman, Smith, and Brown*, 255
See also Nephrosis

L

Lactate: Carbon 14-labeled, glucose from, *Eisenberg*, 501
— —, glucuronic acid from, *Eisenberg*, 501
Lactonase: Glucono-. *See* Gluconolactonase
Lead: Blood, removal, calcium, phosphorus, and vitamin D effect, *Sobel and Burger*, 105
Bone, removal, calcium, phosphorus, and vitamin D effect, *Sobel and Burger*, 105
Leucine aminopeptidase: *Smith and Spackman*, 271
Kidney, isolation and properties, *Spackman, Smith, and Brown*, 255
Lipide: Metabolism, nephrosis, *Marsh and Drabkin*, 633

Liver: Aldehyde oxidase, cytochrome oxidase reduction, effect, *Hurwitz and Cooperstein*, 771
Amino acids, free, ethionine and fasting effect, *Levy, Montañez, and Dunn*, 985
Betaine-homocysteine transmethylase, *Ericson, Williams, and Elvehjem*, 537
Homogentisic acid oxidase, *Crandall*, 565
Nucleic acid, *Olmsted and Villee*, 179
Protein, methionine-S^{35} incorporation into, diet and fasting effect, *Rutman, Rutman, and Tarver*, 95
Transmethylation and vitamin B_{12}, *Mistry, Vadopalaite, Chang, Firth, and Johnson*, 713
Vitamin B_{12}, *Pitney, Beard, and Van Loon*, 117
Lymphosarcoma: Gardner, acetate-2-C^{14} conversion to glycine, *Kit*, 311
Lysine: Canavanine as antimetabolite, yeast and algae, *Walker*, 207
Homoarginine as antimetabolite, yeast and algae, *Walker*, 207

M

Malic dehydrogenase: Hydrogen transfer, rôle, *Loewus, Tchen, and Vennesland*, 787
Methionine: Deficiency, tissue sulfhydryl compounds, non-protein, cold and restraint, effect, *Register and Bartlett*, 741
Sulfur 35-labeled, liver protein incorporation, diet and fasting effect, *Rutman, Rutman, and Tarver*, 95
Monoiodotyrosine: Formation, thyroid effect, *Wyngaarden and Stanbury*, 151
Intermediate iodine complex formation, thyroid effect, *Wyngaarden and Stanbury*, 151
Mucopolysaccharide(s): Metabolism, skin, acetate, labeled, relation, *Schiller, Mathews, Goldfaber, Ludowieg, and Dorfman*, 531
Mucoprotein: Component, urine, visual, *Porter and Tamm*, 135
Mucoprotein—*continued:*
Urine, virus-reacting, ultracentrifugation, *Tamm, Bugher, and Horsfall*, 125
Muscle: Phosphorylase, glycogen and amylopectin, action, *Larner*, 9
Myeloma: Bence-Jones protein, origin, *Putnam and Hardy*, 361
Protein and nitrogen, metabolic, and, interaction, *Hardy and Putnam*, 371
Myosin: Fragmentation, chymotrypsin effect, *Gergely, Gouvea, and Karibian*, 165

N

Nephrosis: Carbohydrate metabolism, *Drabkin and Marsh*, 623
Lipide metabolism, *Marsh and Drabkin*, 633
Protein metabolism, *Drabkin and Marsh*, 623
Nitrogen: Metabolic, myeloma protein and, interaction, *Hardy and Putnam*, 371
Nucleic acid(s): Liver, *Olmsted and Villee*, 179
Purines, glycine and adenine as precursors, tumor-bearing mice, *Barclay and Garfinkel*, 397
Turnover rate, vitamin E relation, *Dinning*, 735
Nucleoprotamine: Protein, nitrogen terminal, *Mason and Peterson*, 485
Quinone and, reaction, *Mason and Peterson*, 485
Nucleotide(s): Pyridine. *See* Pyridine nucleotide
Utilization, *Escherichia coli, Balis, Lark, and Luzzati*, 641

O

Orotic acid: Synthesis and breakdown, enzymatic, *Lieberman and Kornberg*, 909
— — —, ureidosuccinase relation, *Lieberman and Kornberg*, 909
See also Ureidosuccinase
Oxalacetic carboxylase: Biotin, bound, *Lichstein*, 217

XUM

Oxidase: Aldehyde. *See* Aldehyde oxidase
Cytochrome. *See* Cytochrome oxidase
Homogentisic acid. *See* Homogentisic acid oxidase

P

Pancreas: Cholesterol esterase, *Swell and Treadwell,* 141
Pectin: Amylo-. *See* Amylopectin
Pentose: -Containing arylamine, *Escherichia coli* mutant, *Love and Gots,* 647
Peptide(s): Bacterial growth, relation, *Kihara and Snell,* 83
γ-Glutamyl. *See* Glutamyl peptide
Trypsinogen, *Davie and Neurath,* 515
Phaseolus vulgaris: Phytohemagglutinin, *Rigas and Osgood,* 607
Phosphatide(s): Glycerol-. *See* Glycerolphosphatide
Phosphatidyl serine(s): *Baer and Maurukas,* 25
Configuration, determination, *Baer and Maurukas,* 39
Phosphoglycerate: Phosphopyruvate formation from, blood cells, red, *Boszormenyi-Nagy,* 495
Phosphopyruvate: Formation from phosphoglycerate, blood cells, red, *Boszormenyi-Nagy,* 495
Phosphorus: Blood and bone lead removal, effect, *Sobel and Burger,* 105
Phosphorylase: Muscle, glycogen and amylopectin, action, *Larner,* 9
Phytohemagglutinin: *Phaseolus vulgaris, Rigas and Osgood,* 607
Pigment(s): Non-steroidal, urine, removal, charcoal use, *Lombardo, Viscelli, Mittelman, and Hudson,* 353
Pituitary: Enzymes, *Melchior and Hilker,* 187
Polysaccharide(s): Muco-. *See* Mucopolysaccharide
Porphyria: Embryo, chick, *Talman, Case, Nevé, Labbe, and Aldrich,* 663
Porphyrin(s): Iron complexes, chromatography, paper, *Chu and Chu,* 1
Metabolism, *Talman, Case, Nevé, Labbe, and Aldrich,* 663
Proline: Nitrogen terminal, protamine and nucleoprotamine, *Mason and Peterson,* 485
Protamine: Nucleo-. *See* Nucleoprotamine
Proline, nitrogen terminal, *Mason and Peterson,* 485
Quinone and, reaction, *Mason and Peterson,* 485
Protein(s): Amino acids, sulfur-containing, incorporation into, wounds, *Williamson and Fromm,* 705
Bence-Jones, myeloma, origin, *Putnam and Hardy,* 361
Blood serum, selenium 75-labeled, *McConnell and Van Loon,* 747
Liver, methionine-S^{35} incorporation into, diet and fasting effect, *Rutman, Rutman, and Tarver,* 95
Metabolism, nephrosis, *Drabkin and Marsh,* 623
Muco-. *See* Mucoprotein
Myeloma, nitrogen, metabolic, and, interaction, *Hardy and Putnam,* 371
Ribonucleo-. *See* Ribonucleoprotein
Synthesis, *in vitro, Rutman, Rutman, and Tarver,* 95
Thyroxine-binding, blood serum, electrophoresis, *Robbins, Petermann, and Rall,* 403
Pseudomonas fluorescens: Pyridine nucleotide transhydrogenase, *San Pietro, Kaplan, and Colowick,* 941
Purine(s): Metabolism, bacteria, *Love and Gots,* 647
Nucleic acid, glycine and adenine as precursors, tumor-bearing mice, *Barclay and Garfinkel,* 397
Pyridine nucleotide(s): Determination, fluorometric, *Kring and Williams,* 751
Precursor metabolism, *Burch, Storvick, Bicknell, Kung, Alejo, Everhart, Lowry, King, and Bessey,* 897

Pyridine nucleotide transhydrogenase: *Pseudomonas fluorescens, San Pietro, Kaplan, and Colowick,* 941
Pyrimidine(s): *Streptococcus faecalis,* effect, *Puleston, Poe, and Witt,* 319
Pyruvate: Phospho-. *See* Phosphopyruvate

Q

Quinone(s): Nucleoprotamine and, reaction, *Mason and Peterson,* 485
Protamine and, reaction, *Mason and Peterson,* 485

R

Ribonucleoprotein: Preparation, yeast, *Bonar and Duggan,* 697

S

Sarcoma: Lympho-. *See* Lymphosarcoma
Sedoheptulose diphosphate: Formation, tetrose phosphate relation, *Horecker, Smyrniotis, Hiatt, and Marks,* 827
Selenium: Mass 75, blood serum protein, *McConnell and Van Loon,* 747
Serine: Phosphatidyl. *See* Phosphatidyl serine
Serotonin: Urine, *Bumpus and Page,* 111
Skin: Mucopolysaccharide metabolism, acetate, labeled, relation, *Schiller, Mathews, Goldfaber, Ludowieg, and Dorfman,* 531
Sodium: Bone, determination, *Forbes and D'Ambruso,* 655
Urine, determination, *Vanatta and Cox,* 599
Soy bean: *See* Bean
Spinal fluid: *See* Cerebrospinal fluid
Steroid(s): Blood, extraction, *Lombardo, Mann, Viscelli, and Hudson,* 345
Streptococcus: Group A, hyaluronic acid biosynthesis, *N*-acetylglucosamine origin, *Dorfman, Roseman, Moses, Ludowieg, and Mayeda,* 583
Streptococcus faecalis: Pyrimidine effect, *Puleston, Poe, and Witt,* 319
Succinase: Ureido-. *See* Ureidosuccinase
Sugar: Cerebrospinal fluid, determination, anthrone reagent use, *Roe,* 335
Sulfate: Sulfur, radioactive, incorporation into taurine, embryo, chick, *Lowe and Roberts,* 477
— utilization, taurine synthesis, embryo, chick, *Machlin, Pearson, and Denton,* 469
Sulfhydryl compound(s): Non-protein, tissue, methionine deficiency, cold and restraint, effect, *Register and Bartlett,* 741
Sulfur: -Containing amino acids, incorporation into proteins, wounds, *Williamson and Fromm,* 705
Sulfate, radioactive, incorporation into taurine, embryo, chick, *Lowe and Roberts,* 477
— utilization, taurine synthesis, embryo, chick, *Machlin, Pearson, and Denton,* 469

T

Taurine: Sulfate sulfur, radioactive, incorporation into, embryo, chick, *Lowe and Roberts,* 477
Synthesis, sulfate sulfur utilization, embryo, chick, *Machlin, Pearson, and Denton,* 469
Temperature: *See also* Cold
Tetrose phosphate: Sedoheptulose diphosphate formation, relation, *Horecker, Smyrniotis, Hiatt, and Marks,* 827
Thienylalanine: Bacterial growth, effect, *Kihara and Snell,* 83
Thioesterase: Brain, *Strecker, Mela, and Waelsch,* 223
Thyroid: Monoiodotyrosine and intermediate iodine complex formation, effect, *Wyngaarden and Stanbury,* 151
Thyroxine: -Binding protein, blood serum, electrophoresis, *Robbins, Petermann, and Rall,* 403

XUM